

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

- 1. Dr. Pramod Deo, Chairperson**
- 2. Shri R.Krishnamoorthy, Member**
- 3. Shri S.Jayaraman, Member**
- 4. Shri V.S.Verma, Member**

**Petition No. 128/2008**

**In the matter of**

Determination of final transmission tariff and additional capitalization up to 31.3.2008 for (i) 315 MVA ICT-IV along with associated bays at Moga sub-station and (ii) ICT-II along with associated bays and 2 nos PSEB feeder bays at Amritsar sub-station, and 400 kV Bus reactor bay & 2 nos PSEB line bays at Moga sub-station under augmentation of transformation capacity at Amritsar and Moga sub-stations in Northern Region for the period 2004-09.

**And in the matter of**

Power Grid Corporation of India Limited, Gurgaon

**..Petitioner**

Vs

1. Rajasthan Rajya Vidyut Prasaran Nigam Limited, Jaipur
2. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
3. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
4. Jodhpur Vidyut Vitaran Nigam Ltd, Jodhpur
5. Himachal Pradesh State Electricity Board, Shimla
6. Punjab State Electricity Board, Patiala
7. Haryana Power Purchase Centre, Panchkula
8. Power Development Department, Govt. of J&K, Jammu
9. Uttar Pradesh Power Corporation Ltd, Lucknow
10. Delhi Transco Ltd, New Delhi
11. BSES Yamuna Power Limited, New Delhi
12. BSES Rajdhani Power Ltd., New Delhi
13. North Delhi Power Ltd., New Delhi
14. Chief Engineer, Chandigarh Administration, Chandigarh
15. Uttaranchal Power Corporation Ltd, Dehradun
16. North Central Railway, Allahabad

**.....Respondents**

**The following were present:**

1. Shri U.K.Tyagi, PGCIL
2. Shri Prashant Sharma, PGCIL
3. Ms. Sangeeta Edwards, PGCIL
4. Shri R.Prasad, PGCIL
5. Shri Harmeet Singh, PGCIL
6. Shri M.M.Mondal, PGCIL
7. Shri S.N.Singh, UPPCL

**ORDER**  
**(DATE OF HEARING: 26.3.2009)**

This petition has been filed for approval of transmission charges for (i) 315 MVA ICT-IV along with associated bays at Moga sub-station (Asset-I) and (ii) ICT-II along with associated bays and 2 nos PSEB feeder bays at Amritsar sub-station, and 400 kV Bus reactor bay and 2 nos PSEB line bays at Moga sub-station (Asset-II) (collectively referred to as the transmission assets) under augmentation of transformation capacity at Amritsar and Moga sub-stations (the transmission scheme) in Northern Region from the date of commercial operation of the respective asset to 31.3.2009, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004 (hereinafter referred to as "the 2004 regulations") after accounting for additional capitalization during 2007-08. The petitioner has also prayed for reimbursement from the beneficiaries of expenditure incurred towards publishing of notices in newspapers and the petition filing fee.

2. The investment approval for implementation of transmission scheme was accorded by Board of Directors of the petitioner company vide Memorandum dated 1.9.2005 at an estimated cost of Rs. 4728 lakh, which included IDC of Rs.250 lakh.

3. The provisional transmission charges for the Asset-I only were approved by the Commission in its order dated 22.11.2007 in Petition No. 129/2007. The date of the commercial operation of the transmission assets, details of their apportioned approved cost, the estimated completion cost, etc. noted at above are as under:

(Rs. in lakh)

Name of the assets	Date of the commercial operation	Apportioned approved cost	Capital expenditure as on the date of commercial operation	Capital Expenditure from the date of commercial operation to 31.3.2008	Capital expenditure up to 31.3.2008	Balance estimated Expenditure	Total estimated completion cost
Asset- I	1.7.2007	1584.51	1025.60	179.48	1205.08	276.74	1481.82
Asset-II	1.3.2008	3 143.49	1916.09	181.50	2097.59	280.94	2378.53

4. The petitioner has claimed the transmission charges as under:

(Rs.in lakh)

	Asset- I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Depreciation	30.11	43.38	6.08	76.21
Interest on Loan	57.16	77.58	10.57	132.41
Return on Equity	35.12	50.60	7.03	88.14
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	4.25	5.94	1.27	15.79
O & M Expenses	23.72	32.90	18.45	230.30
<b>Total</b>	<b>150.37</b>	<b>210.41</b>	<b>43.40</b>	<b>542.86</b>

5. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:

(Rs. in lakh)

	Asset- I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Maintenance Spares	10.26	10.72	19.16	19.26
O & M expenses	2.64	2.74	18.45	19.19
Receivables	33.42	35.07	86.80	90.48
<b>Total</b>	<b>46.31</b>	<b>48.53</b>	<b>124.41</b>	<b>128.93</b>
Rate of Interest	12.25%	12.25%	12.25%	12.25%
Interest	4.25	5.94	1.27	15.79

6. None of the respondents has been filed its reply. In response to the public notices published by the petitioner in accordance with the procedure specified by the Commission, no comments have been received from the general public.

### **CAPITAL COST**

7. As per clause (1) of Regulation 52 of the 2004 regulations, subject to prudence check, the actual expenditure incurred on completion of the project

shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalised initial spares subject to a ceiling norm as 1.5% of original project cost. The regulation is applicable in case of the transmission system declared under commercial operation on or after 1.4.2004.

8. The petitioner has claimed tariff after accounting for additional capitalization in respect of Asset-I and Asset-II from the date of commercial operation up to 31.3.2008 as given in the table below para 3 above.

**ADDITIONAL CAPITALIZATION 2007-08**

9. Clause (1) of Regulation 53 of the 2004 regulations provides-

“(1) The following capital expenditure within the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital spares in the original scope of works subject to the ceiling norm specified in regulation 52;
- (iv) Liabilities to meet award of arbitration or compliance of the order or decree of a court; and
- (v) On account of change in law:

Provided that original scope of work along with estimates of expenditure shall be submitted along with the application for provisional tariff:

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation of the transmission system.”

10. The details submitted by the petitioner in support of its claim for additional capital expenditure for Asset-I and Asset-II are given hereunder:

Asset-I	Asset-II
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Sl. No.	Year	Amount (Rs. in lakh)	Nature and details of expenditure	Year	Amount (Rs. in lakh)	Nature and details of expenditure
	2007-08	Sub-station=Rs. 179.48 lakh	Balance payments	2007-08	Sub-station= Rs. 181.50 lakh	Balance payments
	Total	Rs. 179.48 lakh		Total	Rs. 181.50 lakh	

11. The additional capital expenditure claimed is within the original scope of work and is found to be in order as it was against the committed liability. Accordingly, capitalization of the additional expenditure claimed by the petitioner has been allowed for the transmission Asset-I and Asset-II, respectively.

12. In the approved scope of work, 250 MVA transformer was to be installed as ICT-IV at Moga sub-station. However, in actual 315 MVA transformer has been installed. Consequent to failure of 250 MVA ICT-II (BHEL make) at Moga sub-station on 13.4.2007, one transformer (CGL make) which was under transit for installation as ICT-IV has been diverted and installed as ICT-II at Moga sub-station, and in its place, one 315 MVA transformer (BHEL make) of Fatehabad sub-station has been diverted to Moga sub-station and installed as ICT-IV.

13. The existing 50 MVAR bus reactor at Moga sub-station has been shifted to a newly constructed bay and ICT-IV has been installed in its place for the following reasons, namely-

- (i) Construction of 220 D/C transmission line along with existing boundary was not required;
- (ii) Future expansion of 400 kV and 220 kV switchyard was getting blocked because of the above line; and
- (iii) Spare bay of Kishenpur-I was not appropriate for termination of any line and hence it was considered appropriate for locating the Bus Reactor

14. During the hearing, the petitioner was directed to furnish the following information/clarification in relation to this project :

- (i) Technical justification for changing the ICT-IV from 250 MVA to 315 MVA, and
- (ii) Justification for considering cost of ICT-IV of 315 MVA and the cost to be apportioned for 250 MVA transformer.

15. The petitioner vide its affidavit dated 17.4.2009 has submitted the reasons as given hereunder.

**Technical justification for changing the ICT-IV from 250 MVA to 315 MVA**

16. The issue of changing ICT-IV at Moga from 250 MVA to 315 MVA was discussed in OCC meeting of NRPC held on 11.5.2007 and the reasons for changing are as follows:

- (i) The existing 400/220 kV 250 MVA ICT-II at Moga sub-station was damaged due to bushing failure resulting in fire on 13.4.2005. Since there was extensive damage to the ICT-II it had to be replaced.
- (ii) Because of load requirement at Moga sub-station and also the request made by PSEB, the damaged ICT-II had to be replaced immediately. Procurement of a new ICT of 250 MVA rating would have taken considerable time.
- (iii) Considering the urgency to meet the peak load during paddy season, as the existing ICTs were getting overloaded, the petitioner proposed to install 315 MVA as ICT-IV (in place of 250 MVA) diverted from

Fatehabad by end of June, 2007. OCC appreciated the petitioner's proposal and requested to immediately commission the 315 MVA ICT at Moga. The Member-Secretary advised the petitioner to approach this Commission for recovery of extra cost, if any, due to installation of 315 MVA ICT-IV in place of 250 MVA ICT.

- (iv) The replacement of 250 MVA ICT by installation of newly procured 315 MVA ICT in the normal course would have required additional time of about two years and a half.
- (v) Asset-I has been retained as ICT-IV at Moga mainly for the following reasons:
  - (a) 250 MVA ICT-IV was planned at Moga during 2004. However with the increase in load demand in the area, it was considered prudent to retain 315 MVA ICT as it provides additional transformation capacity.
  - (b) The power flow sharing by the transformers is in proportion to the impedance of the transformer and accordingly power flow through 315 MVA ICT is more as compared to 250 MVA ICT. Further, power flow of 824 MW has been recorded on 17:00 hrs on 4.8.2007.
  - (c) 315 MVA size ICT is generally used by the petitioner at most of its 400/220 KV sub-stations, whereas 250 MVA sized ICTs are very few in the grid. Hence, 315 MVA ICT would facilitate ease of maintenance and availability of spares.

**Justification for reasonably of cost of ICT-IV of 315 MVA considered and apportioned for 250 MVA transformers**

17. The petitioner has submitted that it follows very detailed and standard procedure for preparing cost estimates, procuring items which are summarized below:

- (i) The cost estimate in board indicative cost is worked out generally on the basis of average unit rates of recently awarded contracts. For procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services are obtained and contracts are awarded on the basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may happen to be lower or higher than the cost estimate depending upon prevailing market conditions;
- (ii) The cost of the transmission assets has been worked out at Feasibility Report stage, for the purpose of investment decision and the scheme approval. Besides, equipment cost, cost of the transmission assets also includes Interest During Construction (IDC), Incidental Expenditure During Construction (IEDC), Cost of survey and soil investigation, Cost of land acquisition, compensation towards crop compensation towards forests, etc.;
- (iii) For the purpose of procurement, entire transmission assets requirement was broken down in various packages (Like Tower package, Conductor package, Insulator package, sub-station package



etc.) and cost estimate for each package is prepared based on latest cost data;

(iv) The financing of the transmission assets has been considered in debt-equity ratio in line with Government of India/Commission's guidelines. As per present guidelines, debt-equity ratio 70:30 has been considered for working out the project cost. The interest during construction included in FR project cost on the basis of interest rates as may be applicable on domestic loan/ multilateral loan as per prevalent rates. The IDC in the project FR cost has been calculated on loan portion as per the phasing of the expenditure up to the scheduled commissioning date of the project. The completed cost of a project for the purpose of tariff is, however, based on the cost/ expenditure actually incurred;

(v) The petitioner undertakes its project procurement as per its policy and procedures, adhering to the procurement guidelines of the funding agencies such as World Bank/ ADB etc, wherever applicable and complying with CVC directions. As per the policy, in general, open competitive bidding process is followed for procurement by widely advertising and National and local newspapers. The bidding documents are also uploaded on the Corporation's website for easy access to the prospective bidders. Further, the bidding documents, which include the Conditions of Contract, Technical Specification Qualification Requirement for the bidders etc. are issued to all the parties who request for the same on payment of the specified cost of documents; and

(vi) Regarding the cost to be apportioned for 250 MVA transformers for purpose of tariff this is stated that the 315 MVA ICT was installed subsequent to the discussion held in 14<sup>th</sup> OCC meeting of the NRPC wherein the Member Secretary, NRPC advised the petitioner to approach the Commission for recovery of the extra cost, if any.

18. The reasons and clarifications furnished by the petitioner, for the installation of 315 MVA ICT-IV at Moga Sub-station in place of 250 MVA ICT are found to be technically justified and are accepted.

**TOTAL CAPITAL COST**

19. Based on the above, gross block as given below has been considered for the purpose of tariff for the transmission assets, after allowing additional capitalization on works as claimed by the petitioner, which is within the limits of apportioned approved cost:

(Rs.in lakh)			
Name of the Element	Admitted capital cost as on the date of commercial operation	Additional capital expenditure up to 31.3.2008	Total Capital expenditure as on 1.4.2008
Asset-I	1025.60	179.48	1205.08
Asset-II	1916.09	181.50	2097.59

**DEBT- EQUITY RATIO**

20. Clause (1) of Regulation 54 of the 2004 regulations *inter alia* provides that,-

“(1) In case of the existing projects, debt–equity ratio Considered by the Commission for fixation of tariff for the period ending 31.3.2004 shall be considered for determination of tariff with effect from 01.04.2004:

Provided that in cases where the tariff for the period ending 31.3.2004 has not been determined by the Commission, debt-equity ratio shall be as may be decided by the Commission:

Provided further that in case of the existing projects where additional capitalisation has been completed on or after 1.4.2004 and admitted by

the Commission under Regulation 53, equity in the additional capitalisation to be considered shall be :-

- (a) 30% of the additional capital expenditure admitted by the Commission, or
- (b) equity approved by the competent authority in the financial package, for additional capitalisation, or
- (c) actual equity employed,

whichever is the least:

Provided further that in case of additional expenditure admitted under the second proviso, the Commission may consider equity of more than 30% if the transmission licensee is able to satisfy the Commission that deployment of such equity of more than 30% was in the interest of general public.”

21. The Note 1 below Regulations 53 lays down that any expenditure on account of committed liabilities with the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54.

22. The petitioner has considered debt-equity ratio of 70.01:29.99 and 69.99:30.01 for Asset-I and Asset-II respectively, as actually deployed on the date of commercial operation. The petitioner has further considered the amount of additional capitalization in the debt-equity ratio of 70:30. In our calculations, actual debt-equity ratio on the date of commercial operation has been considered since over all equity conforms to ceiling limit of 30%. The additional capital expenditure approved has been considered in the ratio of 70:30 in accordance with the 2004 regulations. Accordingly, for the purpose of tariff, equity considered for the transmission assets is as under:

(Rs. in lakh)

	Equity as on date of commercial operation	Notional additional equity during 2007-08	Average equity for 2007-08	Equity as on 1.4.2008
Asset- I	307.60	53.84	334.52	361.44
Asset-II	574.83	54.45	602.05	629.28

### **RETURN ON EQUITY**

23. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

24. Equity has been considered as on the date of commercial operation and as on 1.4.2007 onwards as given in the table in para 22 above. However, tariff for the period from date of commercial operation to 31.3.2008 has been allowed on average equity. Accordingly, the petitioner shall be entitled to return on equity as under:

Name of the asset	Return on equity	
	2007-08 (Pro rata)	2008-09
Asset-I	35.12	50.60
Asset-II	7.02	88.10

### **INTEREST ON LOAN**

25. Clause (i) of regulation 56 of the 2004 regulations *inter alia* provides that,-

“(a) Interest on loan capital shall be computed loan wise on the loans arrived at in the manner indicated in regulation 54.

(b) The loan outstanding as on 1.4.2004 shall be worked out as the gross loan in accordance with Regulation 54 minus cumulative repayment as admitted by the Commission or any other authority having power to do so, up to 31.3.2004. The repayment for the period 2004-09 shall be worked out on a normative basis.

(c) The transmission licensee shall make every effort to re-finance the loan as long as it results in net benefit to the beneficiaries. The costs associated with such re-financing shall be borne by the beneficiaries.

(d) The changes to the loan terms and conditions shall be reflected from the date of such re-financing and benefit passed on to the beneficiaries.

(e) In case of dispute, any of the parties may approach the Commission with proper application. However, the beneficiaries shall not withhold any payment ordered by the Commission to the transmission licensee during pendency of any dispute relating to re-financing of loan;

(f) In case any moratorium period is availed of by the transmission licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

(g) The transmission licensee shall not make any profit on account of re-financing of loan and interest on loan;

(h) The transmission licensee may, at its discretion, swap loans having floating rate of interest with loans having fixed rate of interest, or vice versa, at its own cost and gains or losses as a result of such swapping shall accrue to the transmission licensee:

Provided that the beneficiaries shall be liable to pay interest for the loans initially contracted, whether on floating or fixed rate of interest.”

26. In our calculation the interest on loan has been worked out as detailed below:

(a) Gross amount of loan, repayment of instalments and rate of interest and weighted average rate of interest on actual loan have been considered.

(b) Notional loan arising out of additional capital expenditure for the year 2007-08 has been added in loan amount as on the date of commercial operation to arrive at total notional loan. This adjusted gross loan is considered as normative loan for tariff calculations.

(c) Tariff has been worked out considering normative loan and normative repayments. Normative repayments are worked out by the following formula:

$$\frac{\text{Actual repayment of actual loan during the year}}{\text{Opening balance of actual loan during the year}} \times \text{Opening balance of normative loan during the year}$$

(d) Moratorium in repayment of loan is considered with reference to normative loan and if the normative repayment of loan during the year is less than the depreciation including Advance Against Depreciation during the year, then depreciation including Advance Against Depreciation during the year is deemed as normative repayment of loan during the year.

(e) Weighted average rate of interest on actual loan worked out as per (i) above is applied on the notional average loan during the year to arrive at the interest on loan.

27. Based on the above, the year-wise details of interest worked out are given hereunder:

(Rs. in lakh)

Details	Asset-I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Gross Normative Loan	718.00	843.64	1341.26	1468.31
Cumulative Repayment up to Previous Year/date of commercial operation	0.00	30.11	0.00	6.08
Net Loan-Opening	718.00	813.52	1341.26	1462.23
Addition due to Additional Capitalisation	125.64	-	127.05	-
Repayment during the year	30.11	43.38	6.08	76.21
Net Loan-Closing	813.52	770.14	1462.23	1386.02
Average Loan	765.76	791.83	1401.75	1424.13
Weighted Average Rate of Interest on Loan	9.95%	9.98%	9.05%	9.30%
Interest	<b>57.16</b>	<b>79.04</b>	<b>10.57</b>	<b>132.44</b>

28. The detailed calculations in support of the weighted average rate of interest are contained in Annexure-I and Annexure-II attached.

### **DEPRECIATION**

29. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

- (i) The value base for the purpose of depreciation shall be the historical cost of the asset.
- (ii) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.
- (iii) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.
- (iv) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

30. Depreciation allowed has been worked out as below:

(Rs. in lakh)

	Asset-I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Gross block as on the date of commercial operation	1025.60	1205.08	1916.09	2097.59
Additional Capitalisation during 2007-08	179.48		181.50	
Gross Block at the end of the year	1205.08	1205.08	2097.59	2097.59
Rate of Depreciation	3.60%	3.60%	3.63%	3.63%
Depreciable Value	1003.81	1084.57	1806.16	1887.83
Balance Useful life of the asset	-	-	-	-

Remaining Depreciable Value	1003.81	1054.46	1806.16	1881.75
Depreciation	30.11	43.38	6.08	76.21
Cumulative Depreciation/ Advance against Depreciation	<b>30.11</b>	<b>73.50</b>	<b>6.08</b>	<b>82.29</b>

### **ADVANCE AGAINST DEPRECIATION**

31. As per sub-clause (b) of clause (ii) of Regulation 56 of the 2004 regulations, in addition to allowable depreciation, the transmission licensee is entitled to Advance Against Depreciation, computed in the manner given hereunder:

AAD = Loan repayment amount as per regulation 56 (i) subject to a ceiling of 1/10th of loan amount as per regulation 54 minus depreciation as per schedule

32. It is provided that Advance Against Depreciation shall be permitted only if the cumulative repayment up to a particular year exceeds the cumulative depreciation up to that year. It is further provided that Advance Against Depreciation in a year shall be restricted to the extent of difference between cumulative repayment and cumulative depreciation up to that year.

33. The petitioner has not claimed Advance Against Depreciation and accordingly, Advance Against Depreciation has not been considered.

### **OPERATION & MAINTENANCE EXPENSES**

34. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90



35. The petitioner has claimed O & M expenses for one bay for Asset-I and seven bays for Asset- II which have been allowed. Accordingly, the petitioner's entitlement to O & M expenses has been worked out as given hereunder:

(Rs. in lakh)

	<b>Asset-I</b>			<b>Asset - II</b>	
	2007-08 (Pro rata)	2008-09		2007-08 (Pro rata)	2008-09
O&M expenses for 1 bay	23.72	32.90	O&M expenses for 7 bays	18.45	230.30
<b>Total</b>	23.72	32.90	<b>Total</b>	18.45	230.30

36. The petitioner has submitted that the wage revision of its employees is due with effect from 1.1.2007. Therefore, according to the petitioner, O & M expenses should be subject to revision on account of revision of employee cost from that date. In the alternative, it has been prayed that the increase in employee cost due to wage revision be allowed as per actuals for extra cost to be incurred consequent to wage revision. We are not expressing any view, as this issue does not arise for consideration at this stage. The petitioner may approach for a relief in this regard at an appropriate stage in accordance with law.

### **INTEREST ON WORKING CAPITAL**

37. The components of the working capital and the interest thereon are discussed hereunder:

**(i) Maintenance spares**

Regulation 56(v) (1) (b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, element wise capital expenditure on the date of commercial operation which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out

accordingly by escalating 1% of the historical cost @ 6% per annum. In this manner, the value of maintenance spares works out to Rs. 10.26 lakh and Rs. 19.16 lakh for Asset-I and Asset-II, respectively as on the date of commercial operation. The necessary details are given hereunder:

Transmission assets	Date of Commercial Operation	Capital Expenditure (Rs. in lakh) on the date of commercial operation	Cost of maintenance spares as on the date of commercial operation (Rs. in lakh)
Asset- I	1.7.2007	1025.60	10.26
Asset-II	1.3.2008	1916.09	19.16

**(ii) O & M expenses**

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component of working capital. The petitioner has claimed O&M expenses for 1 month of O&M expenses of the respective year as claimed in the petition. This has been considered in the working capital.

**(iii) Receivables**

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis 2 months' transmission charges claimed in the petition. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

**(iv) Rate of interest on working capital**

As per Regulation 56(v) (2) of the 2004 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the project or part thereof (as the case

may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 12.25% based on SBI PLR as on 1.4.2007, which is in accordance with the 2004 regulations and has been allowed.

38. The necessary computations in support of interest on working capital are appended herein below:

(Rs. in lakh)

	Asset-I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Maintenance Spares	10.26	10.72	19.16	19.26
O & M expenses	2.64	2.74	18.45	19.19
Receivables	33.42	35.32	86.79	90.47
Total	46.31	48.78	124.41	128.92
Rate of Interest	12.25%	12.25%	12.25%	12.25%
Interest	<b>4.25</b>	<b>5.97</b>	<b>1.27</b>	<b>15.79</b>

### **TRANSMISSION CHARGES**

39. The transmission charges being allowed for the two transmission assets are summarised below:

(Rs. in lakh)

	Asset-I		Asset-II	
	2007-08 (Pro rata)	2008-09	2007-08 (Pro rata)	2008-09
Depreciation	30.11	43.38	6.08	76.21
Interest on Loan	57.16	79.04	10.57	132.44
Return on Equity	35.12	50.60	7.02	88.10
Advance against Depreciation	0.00	0.00	0.00	0.00
Interest on Working Capital	4.25	5.97	1.27	15.79
O & M Expenses	23.72	32.90	18.45	230.30
<b>Total</b>	<b>150.37</b>	<b>211.90</b>	<b>43.40</b>	<b>542.85</b>

40. The petitioner is already being paid the transmission charges for Asset-I on provisional basis in terms of order dated 22.11.2007. The transmission

charges already recovered shall be adjusted against the final transmission charges approved now.

41. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

42. The petitioner has sought approval for the reimbursement of expenditure of Rs. 3,16,562/- incurred on publication of notices in the newspapers. The petitioner shall claim reimbursement of the said expenditure directly from the respondents in one installment in the ratio applicable for sharing of transmission charges. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.

43. This order disposes of Petition No. 128/2008.

Sd/-  
**(V.S.VERMA)**  
MEMBER

Sd/-  
**(S.JAYARAMAN)**  
MEMBER

Sd/-  
**(R.KRISHNAMOORTHY)**  
MEMBER

Sd/-  
**(DR.PRAMOD DEO)**  
CHAIRPERSON

**New Delhi dated the 30<sup>th</sup> June 2009**

**Annexure-I****CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN****315 MVA ICT-IV along with associated bays at Moga sub-station**

(Rs. in lakh)

Details of Loan		2007-08	2008-09
<b>1</b>	<b>Bond-XXIV</b>		
	Gross Loan opening	223.00	223.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	223.00	223.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	223.00	223.00
	Average Loan	223.00	223.00
	Rate of Interest	9.95%	9.95%
	Interest	22.19	22.19
	Repayment Schedule	12 Annual instalments from 26. 3.2011	
<b>2</b>	<b>Bond-XXV (Including addcap for 2007-08)</b>		
	Gross Loan opening	495.00	495.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	495.00	525.00
	Additions during the year	30.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	525.00	525.00
	Average Loan	510.00	525.00
	Rate of Interest	10.10%	10.10%
	Interest	51.51	53.03
	Repayment Schedule	12 Annual instalments from 12. 6.2011	
<b>3</b>	<b>SBI LOAN @ 7.95% w.e.f. 24/08/2007 / Bond-XXVI @ 9.3% w.e.f. 7/3/2008</b>		
	Gross Loan opening	0.00	81.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	81.00
	Additions during the year	81.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	81.00	81.00
	Average Loan	40.50	81.00
	Rate of Interest	8.10%	9.30%
	Interest	3.28	7.53
	Repayment Schedule	12 Annual instalments from 07-03-2012 (Bond XXVI)	
	<b>Total Loan</b>		
	Gross Loan opening	718.00	799.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	718.00	829.00
	Additions during the year	111.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	829.00	829.00
	Average Loan	773.50	829.00
	Rate of Interest	9.9520%	9.9815%
	<b>Interest</b>	<b>76.98</b>	<b>82.75</b>

## Annexure-II

**ICT-II along with associated bays and 2 nos PSEB feeder bays at Amritsar sub-station, and 400 kV Bus reactor bay & 2snos PSEB line bays at Moga sub-station**

(Rs. in lakh)

	Details of Loan	2007-08	2008-09
<b>1</b>	<b>SBI LOAN @ 7.95% w.e.f. 01/03/2008 / Bond-XXVI @ 9.3% w.e.f. 07/03/2008</b>		
	Gross Loan opening	1341.00	1341.00
	Cumulative Repayment up to DOCO/previous year	0.00	0.00
	Net Loan-Opening	1341.00	1341.00
	Additions during the year	0.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1341.00	1341.00
	Average Loan	1341.00	1341.00
	Rate of Interest	9.04%	9.30%
	Interest	121.23	124.71
	Repayment Schedule	12 Annual instalments from 7.3.2012	
<b>2</b>	<b>Bond-XXVI (FOR ADDCAP 2007-08)</b>		
	Gross Loan opening	0.00	127.00
	Cumulative Repayment upto DOCO/previous year	0.00	0.00
	Net Loan-Opening	0.00	127.00
	Additions during the year	127.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	127.00	127.00
	Average Loan	63.50	127.00
	Rate of Interest	9.30%	9.30%
	Interest	5.91	11.81
	<b>Total Loan</b>		
	Gross Loan opening	1341.00	1468.00
	Cumulative Repayment upto DOCO	0.00	0.00
	Net Loan-Opening	1341.00	1468.00
	Additions during the year	127.00	0.00
	Repayment during the year	0.00	0.00
	Net Loan-Closing	1468.00	1468.00
	Average Loan	1404.50	1468.00
	Rate of Interest	9.0518%	9.3000%
	<b>Interest</b>	127.13	136.52